

**California Bay Delta Authority  
Independent Science Board Meeting  
California Bay Delta Authority, Bay-Delta Conference Room, Sacramento, CA  
Thursday, January 29, 2004 8:30 a.m. – 12:00 p.m.**

ISB Members in Attendance

|                      |                     |                       |
|----------------------|---------------------|-----------------------|
| Ken Cummins, Ph.D.   | Tom Dunne, Ph.D.    | David Freyberg, Ph.D. |
| William Glaze, Ph.D. | Helen Ingram, Ph.D. | Jack Keller, Ph.D.    |
| John Melack, Ph.D.   | Judith Meyer, Ph.D. | Jeff Mount, Ph.D.     |
| Duncan Patten, Ph.D. | Denise Reed, Ph.D.  | Kenneth Rose, Ph.D.   |
| Robert Twiss, Ph.D.  |                     |                       |

State Staff

|                   |                 |               |
|-------------------|-----------------|---------------|
| Marina Brand      | Dan Castleberry | Marty Kie     |
| Lauren Hastings   | Sam Haraden     | Zach Hymanson |
| Sam Luoma, Ph.D.  | Jill Marshall   | Tim Ramirez   |
| Kim Taylor, Ph.D. | Patrick Wright  |               |

Stakeholders

|                     |                     |                   |
|---------------------|---------------------|-------------------|
| Patrick Akers       | Paul Bowers         | Serge Birk        |
| Robin Fallsheer     | Dave Forkel         | Dave Harlow       |
| Diana Jacobs, Ph.D. | Frank Leavy         | Barbara McDonnell |
| Ernie Meyerfield    | Rick Sitts, Ph.D.   | Larry Smith       |
| Bernice Sullivan    | Tina Swanson, Ph.D. | Diane Windham     |
| David Wright        |                     |                   |

Consultants

|                 |                 |                |
|-----------------|-----------------|----------------|
| Bruce DiGennaro | Kateri Harrison | Crystal Sevier |
|-----------------|-----------------|----------------|

**Meeting Summary**

CBDA Independent Science Board and Summary of ISB Role and Charge

Wright welcomed the stakeholders, thanking them for taking the time to come talk to the ISB. The ISB members and stakeholders introduced themselves. Luoma summarized the ISB's charge.

Agency/Stakeholder Comments

DiGennaro stated that the ISB is currently learning about CALFED issues and stakeholders, and asked that as stakeholders talk with the ISB, they think about addressing why CALFED is unique, the role of science in CALFED, and what the key CALFED science issues are.

The first speaker was Dr. Diana Jacobs, the Deputy Director of California Department of Fish and Game (DFG). She summarized the role of science in CALFED, and the role that the DFG has played in conducting science and linking it to policy. ISB members asked her about the openness of DFG to new scientific functions, how monitoring of restoration is viewed at DFG, and other issues. Twiss thanked Jacobs for her participation on the lead scientist selection panel.

Dr. Tina Swanson, Senior Scientist at The Bay Institute (TBI), spoke about TBI's involvement in CALFED, the importance of bringing more science into water management issues, and continuing to develop performance measures and ecosystem indicators to monitor CALFED's progress. ISB members asked her about how to bring the different metrics that different resource agencies use to measure success together and whether more social science is needed in the context of water conservation.

Larry Smith, CALFED Coordinator at the U.S. Geological Survey (USGS), spoke about the USGS's involvement in designing a monitoring and research program for CALFED in CALFED's early days, and its later participation in the development of the science program and the idea of a lead scientist. He encouraged the ISB to help agencies apply the tools of adaptive management and to look at cross-program effects, as well as to consider the long-term effects of population increase and climate change.

Dr. Rick Sitts, Scientist at the Metropolitan Water District of Southern California (MWD), stated that the MWD is concerned about water reliability and quality and is interested in having the best science available for everyone to see. He encouraged the ISB to bring science and policy together, and to consider the costs and benefits of different alternatives. He spoke about an integrated modeling framework being developed for winter-run chinook salmon. ISB members asked him about data the MWD has collected and the accessibility of that data to others.

Dave Harlow, Assistant Field Supervisor at the U.S. Fish and Wildlife Service (USFWS), summarized the USFWS's involvement in CALFED and emphasized that a long-term perspective is important and that the legal and regulatory framework surrounding CALFED needs to be considered. ISB members asked him to identify key uncertainties and cross-program issues. Twiss thanked him for his participation in the lead scientist selection panel.

Serge Birk, Environmental Director at Central Valley Project Water Association (CVPWA), explained his role and participation in CALFED. He summarized the challenges he perceived, including CALFED program element inconsistencies and restoration driven mostly by regulation. He encouraged the ISB to focus on synthesizing information and data from the different programs, phasing and sequencing projects, addressing water supply, helping prioritize conservation strategies, and expanding public outreach. He explained that the CVPWA's key science issues are to address conflicts relating to fish salvage and diversion screens. ISB members asked him to address the impact of water transfers and to give examples of what past research may need to be reassessed.

Dan Castleberry, Deputy Director of Ecosystem Restoration at the California Bay-Delta Authority (CBDA), stated that the Ecosystem Restoration Program (ERP) has a long-standing commitment to science-based restoration.

Paul Bowers, Levee Program Project Manager at the U.S. Army Corps of Engineers (USACE), stated that the USACE works with the Department of Water Resources and the Department of Fish and Game on the levee system integrity program. He stated that the USACE has supplied CALFED with a list of seven important science questions that are applicable across different CALFED programs.

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